

1950--AN UNUSUAL HADDOCK YEAR ON GEORGES BANK

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The haddock catch from Georges Bank in 1950 was one of the most unusual in the history of that Bank's fishery. This was due to very heavy landings of scrod, particularly during the summer, when some of the most exceptional trips on record

were landed at the Boston Fish Pier. For instance, on July 11 one vessel hailed 100,000 pounds of scrod haddock and only 11,000 pounds of large haddock;^{1/} on August 15 another hailed 114,000 pounds of scrod and only 4,000 pounds of large; on August 21 a third hailed 115,000 pounds of scrod and 5,000 pounds of large. Twenty-four of these unusual trips hailed a total of 2,073,000 pounds of scrod and only 106,000 pounds of large--a ratio of 20 pounds of scrod to 1 of large.

As a result of a continuing study of the haddock fishery by the U. S. Fish and Wildlife Service, certain facts concerning the 1950 catch are available.

This is the first year on record, for instance, that poundages of scrod landed have surpassed poundages of large haddock. The 1950^{2/} had-

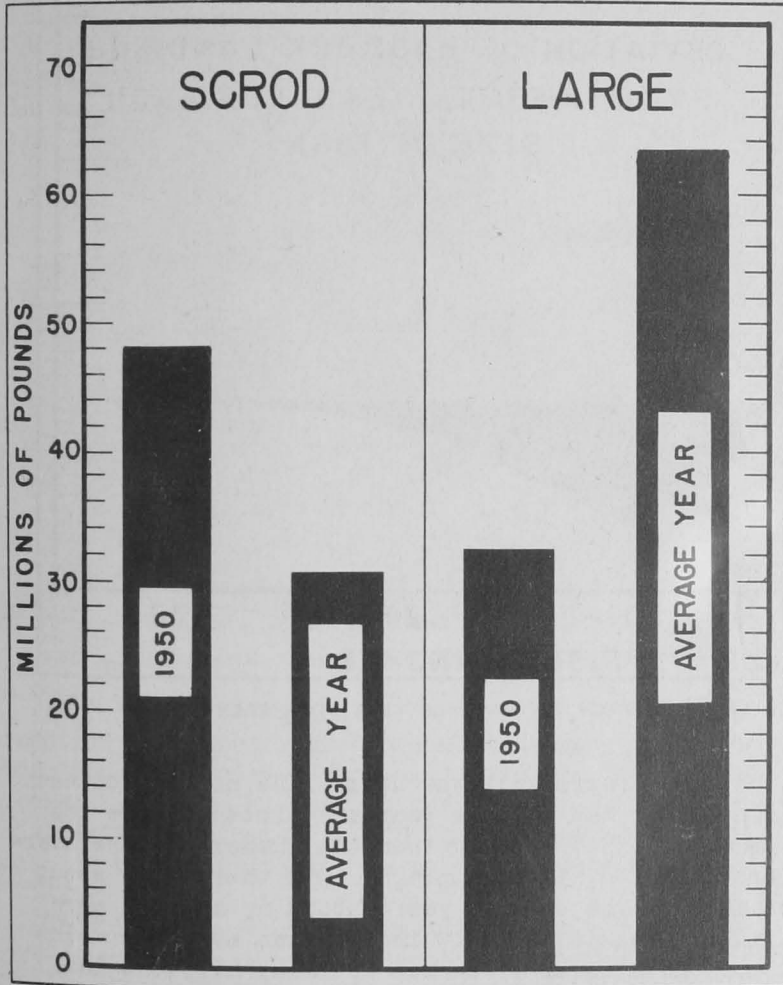


FIGURE 1 - THE POUNDS OF SCROD AND LARGE HADDOCK LANDED IN 1950 AS COMPARED WITH THE AVERAGE YEAR.

dock-year^{2/} catch from Georges Bank was composed of about 48,100,000 pounds^{3/} of scrod and only 32,400,000 pounds of large, a ratio of 3:2, whereas in the average year^{4/} the landings have been about 31,000,000 pounds of scrod and 63,000,000 pounds of large, or a ratio of 1:2.

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^{1/} AS DEFINED BY THE NEW ENGLAND FISH EXCHANGE, SCROD ARE HADDOCK OF 1-1/2 TO 2-1/2 POUNDS, LARGE HADDOCK ARE OVER 2-1/2 POUNDS.
^{2/} THE HADDOCK YEAR, I. E., FEBRUARY THROUGH JANUARY, IS DIFFERENT FROM A CALENDAR YEAR BY ONE MONTH. QUANTITIES FOR THE LAST THREE MONTHS OF THE HADDOCK YEAR 1950 WERE PARTIALLY ESTIMATED.
^{3/} DRAWN WEIGHT.
^{4/} ALL AVERAGE DATA ARE FOR THE PERIOD 1931-48.

The numbers of fish landed show the great abundance of scrod more clearly than do the pounds landed. Of a total of 43,500,000 individual fish landed from Georges Bank in 1950, 34,300,000 were scrod and only 9,200,000 were large, or almost twice the number of scrod (18,200,000) and half the number of large (18,700,000) as are landed in the average year.

The sizes of haddock landed in 1950 differed considerably from the sizes landed in the average year. Figure 2 shows how the sizes in 1950 deviated from the average.

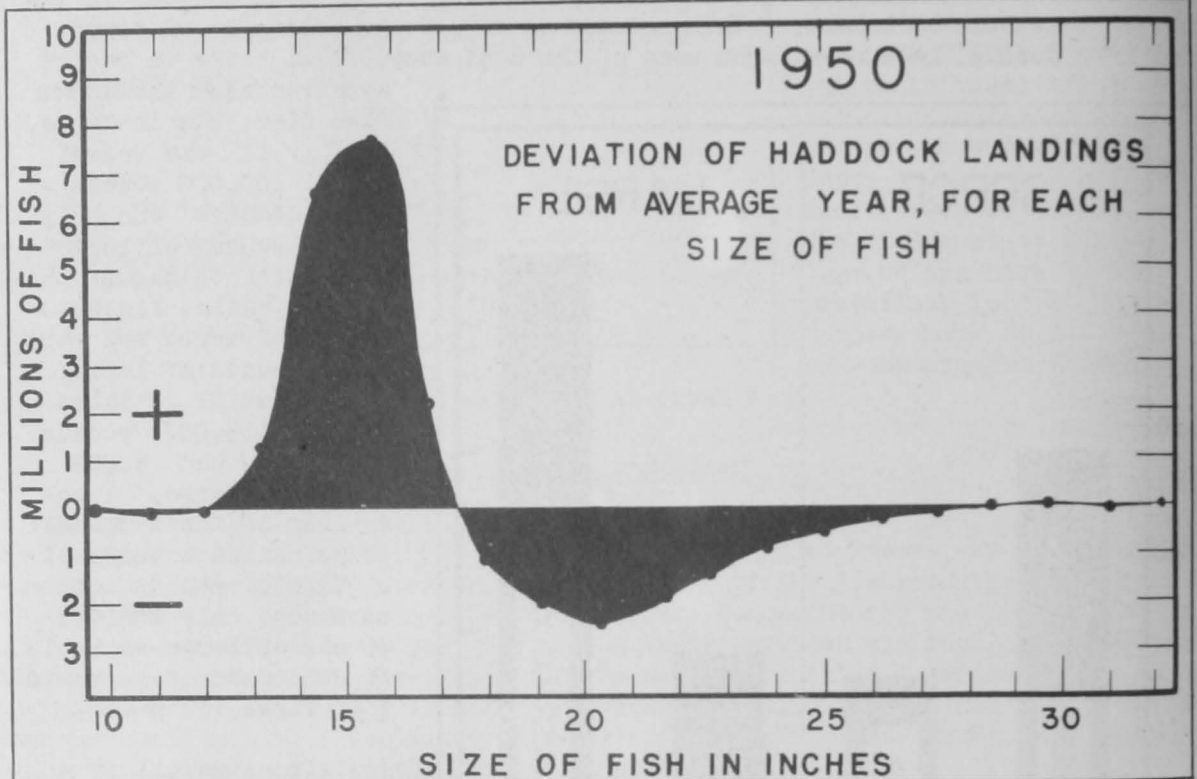


FIGURE 2 - DEVIATION OF 1950 HADDOCK LANDINGS FROM THE AVERAGE YEAR, FOR EACH SIZE OF FISH.

The horizontal line at zero on the scale represents the norm. The numbers of each size of fish that exceeded the number for the average year are plotted above the zero line (+) and the number of each size that was less than the number for the average year are plotted below the zero line (-). For example, in 1950 there were about 1 million more fish of 13 inches than in the average year; about $6\frac{1}{2}$ million more fish of $14\frac{1}{2}$ inches; but some 2 million less fish of 19 inches than average. In brief, there were many millions more fish under 17 inches and many millions less fish over 17 inches than have been landed in the average year.

Most fish under 17 inches are smaller than the established lower limit for scrod.⁵ More than 20,000,000 of these "undersized" haddock were landed from Georges Bank in 1950. In other words, almost half the total numbers caught were "undersized." In the average year less than 5,000,000 undersized haddock have been landed, and never before have more than 10,300,000 fish been landed.

The heavy catches of scrod lowered the individual average weight of all haddock landed in 1950 to only 1.85 pounds. The average weight has never before been below 2.27 pounds; and the average weight for the whole 18-year period has been 2.55 pounds.

⁵SCROD, AS DEFINED BY THE NEW ENGLAND FISH EXCHANGE, INCLUDES HADDOCK OF 1-1/2 - 2-1/2 POUNDS (GUTTED WEIGHT). A 17-INCH HADDOCK AVERAGES SLIGHTLY OVER 1-1/2 POUNDS.

We have been able to assess the ages of haddock landed by examination of the scales collected at the Boston Fish Pier (Figure 3). Of all scrod landed from Georges Bank in 1950, 85 percent were 2-year-olds. In the average year only 47



FIGURE 3 - OBTAINING SCALES FROM HADDOCK AT THE BOSTON FISH PIER FOR AGE DETERMINATION.

percent of the scrod landed are of that age. It is apparent that the 1948 spawning (which produced these 2-year-olds) was one of the most successful, if not the most successful, in the history of the fishery. This year-class in its first two years has already contributed 29,700,000 fish to the landings, almost three times the number of fish contributed in a similar period by the average year-class.

Of all other year-classes to enter the fishery since 1931, three were really outstanding. The large 1936 brood was primarily responsible for increased catches of haddock in the late 1930's, and the successful 1939 and 1940 broods provided good catches of haddock in the early 1940's. These three year-classes (1936, 1939, and 1940) all made greater-than-average contributions to the landings as 2-year-olds, yielding, respectively, about 200, 210, and 130 percent more two's than the average.

Although large catches have already been taken from the 1948-year class, it should continue to make large contributions to the fishery in the next few years. The effect, however, will now become less pronounced on catches of scrod. Thus, we can predict that the catches of large haddock will be somewhat greater in the next two or three years. Future catches of scrod, of course, will depend on the success of subsequent spawnings.

